Managing Event Issues

#	Issue	Possible Resolution
1.	Should event messages be implemented following an OO approach? If so, the implementation would define a base event class that contains attributes and methods for a few high-level parameters (e.g., timestamp, ASCII text version of the event, etc). Sub-classes would then be defined for specialized types of events (e.g., alarm, HW status, SW process status, metric, etc.).	CLOSED 11-12-96 Doug George Events will be encapsulated within one event message class called SYM_EvtEventMessage. There will be no specialization of event messages.
2.	If events are implemented as objects, should state change messages (from CMD) be considered a type (sub-class) of event message?	CLOSED 10-4-96 Doug George No. The EVT should be able to filter events by source, type, or event ID.
3.	How do other processes register an interest in certain event types?	CLOSED 12-1-96 Ed Burgess Ed Burgess of DMG group will provide a developer interface so CCS devopers can register event messages into the Event Lookup Table.
4.	When are events copied to the permanent archive (after t time or n events)? Assume after t time has elapsed a file is closed and a request is made to DMG to come and get the file for archiving.	CLOSED 12-4-96 Beryl Hosack Events will be stored in an Oracle Database.
5.	How are events sent to DMG (as messages or objects)?	CLOSED 9-?-96 Ed Burgess As Messages. OODB systems are immature and Vision 2000 PDT CCS will be using RDBMS.
6.	What user interface will be provided to allow developers / testers to inject events into CCS?	CLOSED 11-1-96 Douglass George SYM EVT will deliver a test injector program as a configuration item for release 2.1.
7.	What actions can the user initiate through the GUI?	CLOSED 12-1-96 Douglass George GUI is a subsystem of CCS, therefore it is a GUI issue and not a SYM EVT issue.

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8.	What are the types of application generated / detected events that are logged and sent to EVT for permanent storage within the CCS DMG? (For example, is an event message generated every time a process or a user requests data from DMG?)	CLOSED 10-4-96 Doug George Every Event Message that is passed to EVT should be archived by CCS DMG.
9.	If EVT goes down and stops accepting events from cooperating CCS processes, what happens to the events? Are they stored on the node where they were generated until EVT comes back up or are they lost?	CLOSED 12-19-96 Dave Fish, Jeff Johnson Middleware will guarantee the delivery of event messages if an application goes down. This will be implemented after release 2.1.
10.	When a "merged data available" message is sent by DMG and monitoring of merged data is automatically initiated by SYM, do the resulting event messages get merged with the existing event archive or are they stored separately? If the two event logs are merged, who is responsible to perform the merge processing?	OPEN 10-4-96 Doug George There are three domains that event messages cover. These domains are HST, SN (NCC, SN, WSGT), and CCS. Only events concerning
11.	How will EVT be designed to avoid limiting the size of event messages generated by CCS applications? (Consider providing a pointer in the event message to a supplemental data file.)	CLOSED 9-?-96 Dave Fish Provide a pointer or description in message to supplemental data file.
12.	How will Time Tagging be handled? Should the Event be time tagged when it is generated or when it is received by the central Manage Events process? Or should their be two time-tags? If events are time-tagged when they are generated by CCS applications they will incur delays in being transported to the EVT and EVT will have to sort events.	CLOSED 10-4-96 Doug George Time Tag events when CCS applications generate events, without sort routines within EVT. Delays within CCS shouldn't be that great so no sorting routines should be necessary.
13.	Can a web-based user interface be implemented for generating event messages into a database?	CLOSED 12-5-96Douglass George Yes.
14.	Is background and foreground merging process done within EVT, or as a function of an event message?	CLOSED 1-20-97 JohnBreen The merging of foreground and background data will be a function of the GUI subsystem.

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15.	Are users disallowed to modify or delete existing event messages, only to add new event messages? (This is because of data mining.)	CLOSED 10-7-96 Ed Burgess The Event DB will be stored by DMG. MUGSY will store the configuration item, and change set that indicates the difference from one table DB version to the next. This will solve the problem of datamining.
16.	Events message database part of DMG or MUGSY?	CLOSED 10-7-96 Ed Burgess The Event DB will be stored by DMG. MUGSY will store the configuration item, and change set that indicates the difference from one table DB version to the next. This will solve the problem of datamining.
17.	Should COTS products be evaluated for EVT?	CLOSED 10-4-96 Doug George YES; Looking at Remedy Corporation Action Request System
18.	Who's domain is updating the Event Database, DMG, EVT, or GUI?	CLOSED 12-9-96 Doug George The GUI will provide DMG with a display that is separate from the Event Analyzer display.
19.	What Data does the FEP process concerning modes? This will affect where data originates from for different modes of SYM operations.	CLOSED 10-9-96 MikeGarvis The FEP will generate events concerning HST from telemetry originating from HST via WSGT, replay from WSGT, HST Tape Recorder Playback Engineering data. Merged Data will not be processed through the FEP.
20.	How will the failover of EVT be handled? Will local processes have to store events locally until a new EVT can be started?	CLOSED 10-25-96 Dave Fish There should be redundant processes of EVT running as hot-backups. Only the primary EVT will have the capaiblity to log event messages.
21.	When in historical replay mode how will duplicate events be handled since duplicates of those in Real Time mode will not be archived? This is important to ensure that event messages are not a replicate everything already in the archive during historical replay mode.	OPEN 10-21-96 Some kind of filtering process for filtering out duplicate messages will have to be implemented in either EVT or in DMG.

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22.	Where will the cache and filtering process for GUI reside?	CLOSED 10-24-96 JohnBreen GUI will extend the capabilities of the Event Analyzer to include filtering for display and caching.
23.	DMG sorts events that are out of order (from merged replay)?	CLOSED 10-28-96 Doug George YES, DMG sorts event messages as an inherited function of a Data Base
24.	Do other process signing up for filtered events want in 250 ASCII text string or an object/structure?	CLOSED 11-1-96 SYM, DMG, and GUI Teams Event Messages will be passed around as objects and not as ASC text strings
25.	When new versions of the Event Lookup Table Data Base are available, how is data mining performed?	CLOSED 11-2-96 Ed Burgess There are two possible solutions. First, there will be no versions of the Event Lookup Table Data Base. Event Records may only be added but not modified or deleted. Second Solution is to have version fields in the Database along with Version attributes within an Event Message Object.
26.	How is GUI going to distinguish between Historical and Real Time Event Messages?	CLOSED 12-18-96 Doug George The GUI will distinguish between Historical and RealTime Events by the attribute myOpMode for the event message.
27.	Should the C library call using variable number of parameters or a set of 3 C++ (the createEvent(short int, SYM_EvtOpMode)addForeground(short int) overloaded 6 times, and finallysendEvent() .) methods be used in sequence for creating event messages?	CLOSED 1-16-96 Mark Rice The C++ methods used in sequence are to be implemented (the createEvent(shortint, SYM_EvtOpMode)addForeground(shortint) overloaded 6 times, and finallysendEvent() .) The variable number of parameters method is not robust, usestypechecking during runtime, and if a developer passes in the wrong number of arguments, the program will cause a segmentation fault. The 3 C++ methods used in sequence uses typchecking at compile time and is more robust solution.

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28.	Should the convertToGUIText be in the GUI domain or SYM EVT?	CLOSED 1-20-96 John Breen The convertToGUIText will be in the GUI domain for several reasons. First this provides less coupling between the two systems. If the format of the GUI text is ever changed, we'll have to recompile every CCS application since every CCS application is linked into the evtgen library containing the EventMessage Code.
29.	What Time Class are we using; CCS Time, mjd, or ModJulianTime?	OPEN 1-23-96 Douglass George Approached Jeff Johnson. Jeff said this is still an open issue at a CCS level and he will get back to me.
30.	Should another attribute be added to the Event Message class to determine if the event message was generated by a normal operational application or a test driver or test injector program?	CLOSED 1-22-96 Douglass George Meeting with Dave Fish, Larry Barret, Walt Gallaugher, Doug Spiegel, Ed Ruberton, an Douglass George concluded that another attribute called MyTestFlag will be added to the Event Message class.
31.	It is possible in Release 2.1 to typecast an invalid enumerated type (such as Subsystem or OpMode) from an int type. Software does not fault. Should this problem be resolved for R2.2	OPEN 1-27-96 Douglass George Jeff Johnson stated that error checking in API is inappropriate since all values are hard coded. Error Checking would just slow down performance of real time applications.
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33.		